

NOTED

FCS/84/33SECRETARY OF STATE FOR EDUCATION AND SCIENCEProposed Review of High Energy Particle Physics

1. In my minute of 20 January I said I would let you have a considered reply to your letter of 17 January. I am most grateful for the opportunity to comment before the question of the review is raised more widely. I can understand the financial pressures which have led the Advisory Board for the Research Councils to propose the review, and you to favour it.

2. I have now consulted our posts in CERN member states. Their comments reinforce my own anxieties that the review would inevitably be seen as evidence that the UK intended to withdraw from CERN, and that the UK was not a reliable and committed partner in collaborative scientific projects, and indeed in other forms of European collaboration. This perception could affect the willingness of other European countries to collaborate with us on high technology programmes. It would inevitably add weight to the voices of those who say that we are not committed to Europe or the Community and cannot be relied upon when the going becomes difficult. You may like to see the enclosed copies of telegrams from Paris, Bonn and Geneva which make these points fully and well (your officials have already seen them and other posts' comments too).

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3. In addition to the political implications, I am concerned at the possible effect on the UK's standing in international science. We have seen direct evidence of the value which other member countries place on CERN. The French, for example, approached us on instructions on 28 November to express concern over a threat of withdrawal which the UK representative had made in the CERN Council during a debate about reallocating refunds to member countries. Denmark and other member countries also voiced their concern direct to SERC at the time. Moreover, the review would inevitably affect the UK's negotiating position on other new projects now under discussion (for example, the Spallation Neutron Source, the European Synchrotron Radiation Facility, the development of the Institut Laue Langevin and - though it is not your responsibility - the European Transonic Windtunnel). The UK's reputation in the field of European research and development could also be adversely affected - a field which is likely to be of increasing importance. In the Community our commitment to co-operation in research and development is already in doubt as a result of our inability to agree Community programmes because of the continuing disagreement in Whitehall about attribution.

4. That said, I am only too well aware of the financial constraints which have brought about the proposal for a review. However, it is important to set the cost of CERN to the UK - some £28-30 million a year - in the context of the sums spent on other research at home and abroad. For example, in 1982-83, the MOD spent £1,920 million on R&D; the Department of Energy spent £361 million; and the Department of Trade and Industry £335 million. This

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underlines the extent to which - as we both noticed in more than one NEDC discussion - we spend a uniquely large proportion of our research funds in the defence field. The consequences are made starkly plain in your present problem. Surely the balance is not irreversible)

5. Whatever the answer to that question, other countries are bound to compare what they will regard as penny-pinching with their own research programmes. The FRG, which already pays more to CERN than does the UK, has a 1984 civil R&D budget of some £1,820 million (a 3% increase over 1983); support for large science institutions, the major non-university research organisations and international subscriptions has been increased by 3.6%, 4.9% and 3.5% respectively. The Germans contribute 9.6% of their civil R&D budget to international collaborative projects. France, which also contributes more to CERN than does the UK, has emphasised the importance they attach to research by legislating for an annual 17.8% increase in real terms in expenditure on civil research and development. In 1984 French expenditure on fundamental research is expected to rise by 12.2% in nominal terms.

6. I know that you will take these considerations carefully into account, and you may see advantage in ensuring that the ABRC and SERC are properly aware of them. If, however, they continue to recommend the proposed review, and you consider that in view of the financial and other considerations involved you must accept this recommendation, I hope there will be an opportunity for the FCO to put my anxieties directly and confidentially to the Review Group, and to participate in the official shadow group which you

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propose in your letter. We would of course be glad to help the Review Group in any way we can; in particular, our posts overseas would be pleased to help in arranging their overseas visits.

7. As to the Review Group itself, I am a little concerned at the proposed membership. I think it important that the Group should not only be as balanced as possible, but be seen so to be. At first sight it would seem that none of the people you have in mind have expertise primarily in high energy physics. In order to convince people in other CERN member states that the membership is balanced and the review a fair one, it might be better to have at least two scientists expert in high energy physics or closely allied fields among the seven or so members of the Group.

8. I am grateful for your point that any changes on which we may embark would have to be brought about by due process according with the Treaty requirements and taking account of our moral obligations. I entirely concur in this important principle.

9. If it is decided to go ahead with the review, we shall need to consider carefully the terms of any public announcement and its timing in relation to action on the wider international scene. I have particularly in mind, of course, the European negotiations. We must take great care not to inject a negative signal at what might be a critical stage in the run-up to Brussels. I hope you might agree, for example, to write to Ministers in CERN

/member



GS1446/0218

DEPARTMENT OF EDUCATION AND SCIENCE

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FROM THE SECRETARY OF STATE

Dear Geoffrey,

17 January 1984

PROPOSED REVIEW OF HIGH ENERGY PARTICLE PHYSICS

I am taking the unusual step of writing to you informally on what on the face of it is an arcane subject because it may have diplomatic consequences meriting some rather careful thought and preparation.

Briefly, the Advisory Board for the Research Councils (the ABRC, which advises me on the distribution of the £500m or so per annum that constitutes the Science Budget) has reached the stage of questioning whether the UK can afford to continue to engage in research across the whole frontier of science, or should consider selective withdrawal from some major field. One obvious candidate, and probably the largest coherent activity, is high energy particle physics, where virtually the whole of the UK effort (which is, I am advised, first rate by world standards) is concentrated in CERN, to which most other West European countries also subscribe. Currently the UK subscription is about £30m per annum, about 5% of the Science Budget and over 10% of the budget of the Science and Engineering Research Council (the SERC, through whom the UK Government operates its membership). The ABRC has proposed to me that, with the SERC, it should review UK participation in high energy particle physics. An extract from the Board's advice and the proposed terms of reference and membership of the Review Group, are enclosed as Annexes A-C.

You will see that the intention is to make a full appraisal of options for the future level of UK activity in this field. It is far from being a foregone conclusion that we should withdraw from the subject, and thus from CERN. But, realistically, that must be one of the possibilities examined by the Group; and we, as a Government, must I think be willing to let this examination go on

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PERSONAL AND CONFIDENTIAL
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despite the clear implication that, if the result were a recommendation to withdraw from CERN, we would address that proposal seriously. Indeed the two Chairmen concerned - Sir David Phillips and Professor Kingman - have asked me for an assurance on this point. There would of course be absolutely no prior commitment on our part one way or the other to any particular outcome.

The other assurance that the two Chairmen have sought is that, barring unpredicted crises, any funds that might in due course be released by reduction in our commitment to high energy particle physics should be available for redeployment elsewhere within the Science Vote.

I think the request for those two assurances entirely reasonable and intend to write formally to you, Nigel Lawson and our other Cabinet colleagues in due course to seek concurrence. I have had a preliminary word with the Prime Minister and believe she will be willing to see the review proceed on these terms.

However I thought it best to write to you first because the diplomatic consequences, especially for our relations with the other senior members of CERN - France and Germany - might prove to be the most problematic area in getting the review launched. There has been some limited reference in the science press to a possible review, and I believe that privately it will come as no surprise to our partners and to the top people at CERN. But that of course is a very different thing from saying that there will be little or no fuss when the review is formally announced (as it would have to be).

I can well see that you may wish to take soundings with posts on possible repercussions following an announcement of the review and any guidance they might have to offer on its public presentation. I hope this can be done rapidly. To be of use, the findings of the review should be available for the ABRC and SERC, and for Ministers, by the autumn even though any PES consequences are not likely to begin before the last year of the PES period. It is an exercise that, if it is to happen, should happen with dispatch; and I would ask the Group to try to complete its work within about six months. That would mean that they need to get started pretty soon.

Officials here have already had a first discussion with yours and stand ready to collaborate fully in the further work that will be required, as in providing briefing for posts. We, and the Review Group, will also need to look to your Department for help during the review, which will have to include some visits overseas and probably scientific and diplomatic soundings. I suggest that we should form an official shadow group chaired from here and including your Department in membership (as also the Treasury, DTI, Department of Energy and Dr Nicholson). The role of the shadow group would be to co-ordinate the preparation of Departmental evidence and briefing, and generally to keep in touch with the work of the Review Group. In this way we might avoid weighing down the latter with assessors while keeping the exercise on the rails.

One other aspect to which your people may wish to give some preliminary thought is the legal. I am open to correction, but I do not see this as something requiring urgent examination before the review begins although it must be properly taken on board in the course of the review. As I see it, any changes we may subsequently embark on would have to be brought about by due process according with the Treaty requirements and taking account too of our moral obligations. I recall in particular that we undertook to participate in the construction of LEP Phase 1 although the commitment here was moral rather than legal. Any changes must take due account of such commitments and, if there were to be significant diminution in our contribution to CERN, my guess is that it is only realistic to think of the main impact coming towards the end of this decade and after.

As I said, I am writing only to you at this stage; I should of course be very happy to have some discussion if you wished. Either way I should be grateful if you could let me know fairly quickly that you see no objection to my proceeding to write more formally to colleagues, and whether there are aspects you would particularly like me to bring out in that letter.

Yours ever.

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